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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,957	12/05/2001	Jacques Bourdon	004900-200	3186
21839	7590	02/25/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			PRICE, ELVIS O	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	

1621

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary****Application No.**

09/889,957

**Applicant(s)**

BOURDON ET AL.

**Examiner**

Elvis O. Price

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/25/01</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-20 are pending in the application.
2. Claims 12-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicants timely traversed the restriction (election) requirement. The traversal is on the ground(s) that Group I and Group II are linked to form a single general inventive concept because there is a technical relationship among the inventions that involves at least one common or corresponding special technical feature. For example, applicants argue that Group I is directed to a separation and purification process of a crude mixture comprising hydroquinone and resorcinol, in which process a series of distillation stages is required and Group II is a plant that is comprised of distillation columns for performing the distillation stages required in Group I. This is not found persuasive because distillation, for separation and purification purposes, is an art recognized technique, which can be performed in series/stages so as to obtain a more purified desired product. It is also known in the art that the separation of hydroquinone and resorcinol can be obtained by distillation equipment and methods known in the art as disclosed in FR 2 467 155 A and US 4,308,110. Therefore, the claimed invention of Group I does not require the particulars of Group II. Thus, it would cause an undue burden of search to prosecute the two distinct inventions.

The requirement is still deemed proper and is therefore made FINAL.

***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

***Information Disclosure Statement***

The information disclosure statement complies with the provisions of 37 CFR 1.97, 1.98 and MPEP02 § 609. It has been placed in the application file and the information referred to therein has been considered as to the merits.

***Search Report***

The search report has been considered.

***Claim Objections***

Claim 1 is objected to because of the following informalities: In claim 1, line 8 (third line of step ii), between the words "distillation" and "top", it appears that the word "a" has been inadvertently typed. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosaka et al {US Pat. 4,308,110}, in view of Suda et al. {US Pat. 3,969,420}.

Applicants claim, in brief, a process for separation and purification of a crude hydroquinone/resorcinol mixture comprising, distilling the mixture to obtain as a top

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distillate fraction a resorcinol-rich fraction and then distilling the bottom fraction to obtain as a top distillate fraction a hydroquinone-rich fraction before subjecting the hydroquinone-rich fraction and/or the resorcinol-rich fraction to a refining stage in order to extract the hydroquinone and/or resorcinol.

Hosaka et al. teach a process for separating and purifying a crude hydroquinone/resorcinol mixture comprising, distilling the mixture to obtain as a top distillate fraction a resorcinol-rich fraction and then distilling the bottom fraction to obtain as a top distillate fraction a hydroquinone-rich fraction (see Col. 2, lines 3-23; Col. 3, lines 1-11 and Example 2). The difference between the presently claimed invention and what is taught by the Hosaka et al. reference is that the reference does not teach extraction of the hydroquinone and/or resorcinol from the fraction rich in either hydroquinone or resorcinol.

However, Suda et al. teach the extraction of hydroquinone and resorcinol from a hydroquinone/resorcinol mixture (see Col. 3, line 5-31 and Col. 4, lines 11-26 of Example 1).

It would have been *prima facie* obvious to one having ordinary skill in the art, in view of the Hosaka et al. and Suda et al. references, to separate and purify a crude hydroquinone/resorcinol mixture as presently claimed because Hosaka et al. teach a process for separating and purifying a crude hydroquinone/resorcinol mixture comprising, distilling the mixture to obtain as a top distillate fraction a resorcinol-rich fraction and then distilling the bottom fraction to obtain as a top distillate fraction a

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hydroquinone-rich fraction and Suda et al. teach the extraction of hydroquinone and resorcinol from a hydroquinone/resorcinol mixture.

One having ordinary skill in the art, in view of the cited references above, would have been motivated to arrive at other art recognizable processes, depending on cost, convenience, availability of materials, etc., for separating and purifying a crude hydroquinone/resorcinol mixture by combining the extraction process taught by Suda et al. with the separation/purification process taught by Hosaka et al. Thus, the presently claimed invention would have been obvious to one having ordinary skill in the art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

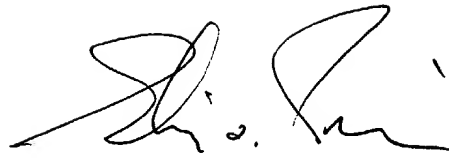
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elvis O. Price whose telephone number is 571 272-0644. The examiner can normally be reached on 8:30 am to 5:00 pm; Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571 272-0646. The fax phone numbers for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

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A handwritten signature in black ink, appearing to read 'Elvis O. Price', with a stylized, cursive script.

Elvis O. Price

February 22, 2004